

| Updated | | 1/13/2009 | | Assumed Class Size | | 38 | | Students | | 37 | | 37-W08 Petersen; 38-S07 Hwang; 36 W06 Liu; | | CMF | | CMF | | | | | | | | | | | |
|---|-----------|---|-----------|--------------------|--------------|--------------|-------------|-------------|-------------|-------------|--|--|------|-----------------------------|------------------------------|--------------|----------------|--|-------|---|----------------|-------|--------|----------|--------|--------|------------------------------------|
| | | | | Recent Size | | 37 | | | | | | Proposed | | Current | | Change | | | | | | | | | | | |
| | | | | Max Size | | 60 | | | | | | | | | | | | | | | | | | | | | |
| Parts Kit | | | | | | | | | | | | | | 17.31 | | 15.00 | | 2.31 | | | | | | | | | |
| Student Labor for Parts Kit | | | | | | | | | | | | | | 3.16 | | 0.00 | | 3.16 | | | | | | | | | |
| Consumables | | | | | | | | | | | | | | 2.71 | | 0.00 | | 2.71 | | | | | | | | | |
| Printing | | | | | | | | | | | | | | 15.00 | | 10.00 | | 5.00 | | | | | | | | | |
| Total Lab Fee | | | | | | | | | | | | | | 38.18 | | 30.00 | | 8.18 | | | | | | | | | |
| UC Santa Cruz EE171 Parts Kit List 2009 | | | | | | | | | | | | | | Quantity Needed Per Quarter | Quantity Rate to Use (Qbest) | Per Kit Cost | Per Class Cost | Class Cost using Q1 Rate | Notes | | | | | | | | |
| Item | Qty / kit | Description | mfr | mfr p# | Vendor P/N | Vendor | A Price/ea. | B Price/ea. | C Price/ea. | D Price/ea. | | | | | | | | | | | | | | | | | |
| 1 | 4 | IC, LM741, High Perf Op Amp, 18V, 8pin DIP | Fairchild | LM741CN | LM741CNFS-ND | Digikey | 0.49 | | 0.27 | 0.135 | | | 152 | 0.27 | 1.08 | 41.04 | 74.48 | | | | | | | | | | |
| 2 | 2 | Transistor, 2N3904, NPN Eptaxial Planar, TO-92 Package | 2N3904 | | 38359 | Jameco | 0.07 | 0.07 | 0.06 | 0.035 | | | 76 | 0.07 | 0.14 | 5.24 | 5.32 | | | | | | | | | | |
| 3 | 2 | IC, CA3086 matched transistor set, 14Pin DIP Package | | | 12159 | Jameco | 1.59 | 1.45 | 1.30 | | | | 76 | 1.45 | 2.90 | 110.20 | 120.84 | | | | | | | | | | |
| 4 | 2 | IC, CD4007 CMOS inverter, 14 Pin DIP Package | | | 12597 | Jameco | 0.42 | 0.34 | 0.25 | | | | 76 | 0.34 | 0.67 | 25.54 | 31.92 | | | | | | | | | | |
| 5 | 2 | Transistor, JFET, 2N5486, JFET (Fairchild), TO-92 Package | | | 253577 | Jameco | 0.12 | 0.12 | 0.11 | 0.105 | | | 76 | 0.12 | 0.23 | 8.82 | 9.12 | | | | | | | | | | |
| 6 | 2 | Transistor, JFET, 2N5951, TO-92 Package | | | 38527 | Jameco | 0.69 | 0.64 | 0.44 | 0.330 | | | 76 | 0.64 | 1.28 | 48.64 | 52.44 | | | | | | | | | | |
| 7 | 8 | Resistor, Metal Film Resistor, 10K, 1/4watt, 1% | Yageo | MFR-25FBF-10K0 | 10.0KXBK-ND | Digikey | 0.10 | 0.10 | 0.02 | 0.019 | | | 304 | 0.02 | 0.15 | 5.78 | 30.40 | purchase in Q1000 | | | | | | | | | |
| 8 | 4 | Resistor, Carbon Film, 100 ohm, 1/4watt, 5% | | | 100QBK-ND | Digikey | 0.60 | 0.06 | 0.01 | 0.010 | | | 152 | 0.01 | 0.04 | 1.52 | 91.20 | purchase in Q1000 | | | | | | | | | |
| 9 | 10 | Resistor, Carbon Film, 10K ohm, 1/4watt, 5% | | | 10KQBK-ND | Digikey | 0.60 | 0.06 | 0.01 | 0.010 | | | 380 | 0.01 | 0.10 | 3.80 | 228.00 | purchase in Q1000 | | | | | | | | | |
| 10 | 2 | Resistor, Carbon Film, 33K ohm, 1/4watt, 5% | | | 33KQBK-ND | Digikey | 0.60 | 0.06 | 0.01 | 0.010 | | | 76 | 0.06 | 0.13 | 4.86 | 45.60 | purchase in Q1000 | | | | | | | | | |
| 11 | 2 | Capacitor, 100pF, Monolithic Ceramic Epoxy Dipped (+-20%) | | | 81525 | Jameco | 0.12 | 0.10 | 0.08 | 0.060 | | | 76 | 0.10 | 0.20 | 7.60 | 9.12 | | | | | | | | | | |
| 12 | 2 | Capacitor, 0.1uF (100,000pF), Dipped Tantalum (+-10%) | | | 33486 | Jameco | 0.23 | 0.23 | 0.17 | 0.135 | | | 76 | 0.23 | 0.45 | 17.10 | 17.48 | | | | | | | | | | |
| 13 | 1 | Capacitor, 6.8uF, Dipped Tantalum (+-10%) | | | 33873 | Jameco | 0.52 | 0.47 | 0.37 | 0.281 | | | 38 | 0.47 | 0.47 | 17.78 | 19.76 | | | | | | | | | | |
| 14 | 1 | Photo Diode, Pin | | | 1950649 | Jameco | 0.59 | 0.55 | 0.49 | 0.350 | | | 38 | 0.55 | 0.55 | 20.90 | 22.42 | | | | | | | | | | |
| 15 | 1 | LED, White, High Intensity, 3mm | | | 25-2320 | MCM Electron | 5.29 | 5.09 | 4.78 | | | | 38 | 5.09 | 5.09 | 193.42 | 201.02 | | | | | | | | | | |
| 16 | 1 | Speaker, Micro 20mm Diameter, 8 ohms, 0-5KHz | | | 135722 | Jameco | 1.95 | 1.75 | 1.49 | 1.190 | | | 38 | 1.75 | 1.75 | 66.50 | 74.10 | | | | | | | | | | |
| 17 | | | | | | | | | | | | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | |
| 18 | | | | | | | | | | | | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | |
| 19 | | | | | | | | | | | | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | |
| 20 | | | | | | | | | | | | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | |
| 21 | | | | | | | | | | | | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | |
| Parts Cost Only | | | | | | | | | | | | | | | | 15.23 | 578.74 | 1,033.22 | | | | | | | | | |
| Santa Cruz County Sales Tax (8.5%) | | | | | | | | | | | | | | | | 1.29 | 49.19 | 87.82 | | | | | | | | | |
| Estimated Shipping Costs (Assume \$10 per order) | | | | | | | | | | | | | | | | 10.00 | 10.00 | 10.00 | 10.00 | 3 | 10.00 | 0.79 | 30.00 | 30.00 | | | |
| Kit Cost - Parts Only | | | | | | | | | | | | | | | | | | | | | | 17.31 | 657.93 | 1,151.04 | | | |
| Kit cost using Q1 Rates | | | | | | | | | | | | | | | | | | | | | | | 17.31 | 30.29 | | | |
| Student Labor to Inventory Parts, Make Order, Assemble & Distribute Kits (12hrs for class at \$10.00/hr) | | | | | | | | | | | | | | | | | | | | | | 12 | 10.00 | 3.16 | 120.00 | 120.00 | Parts are more detailed than EE070 |
| Consumables | | | | | | | | | | | | | | | | | | | | | | | 2.71 | | | | |
| 1 | 0.25 | Wire, 24 gage solid, Black | | | | Newark | 29.95 | | | | | | 0.30 | 29.95 | 8.985 | 8.99 | 8.99 | 500 ft spool - assumed to last 3 classes | | | | | | | | | |
| 2 | 0.25 | Wire, 24 gage solid, Red | | | | Newark | 29.95 | | | | | | 0.30 | 29.95 | 8.985 | 8.99 | 8.99 | 500 ft spool - assumed to last 3 classes | | | | | | | | | |
| 3 | 0.25 | Wire, 24 gage solid, White | | | | Newark | 29.95 | | | | | | 0.30 | 29.95 | 8.985 | 8.99 | 8.99 | 500 ft spool - assumed to last 3 classes | | | | | | | | | |
| 4 | 0.25 | Wire, 24 gage solid, Green | | | | Newark | 29.95 | | | | | | 0.30 | 29.95 | 8.985 | 8.99 | 8.99 | 500 ft spool - assumed to last 3 classes | | | | | | | | | |
| 5 | 0.25 | Wire, 24 gage solid, Yellow | | | | Newark | 29.95 | | | | | | 0.30 | 29.95 | 8.985 | 8.99 | 8.99 | 500 ft spool - assumed to last 3 classes | | | | | | | | | |
| 6 | 1 | Wirecutter/Wirestripper Tool | Hanlong | HT-5023-R | 159291 | Jameco | 10.85 | 9.78 | 8.80 | | | | 1.00 | 10.85 | 10.85 | 10.85 | 10.85 | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consumables only | | | | | | | | | | | | | | | | | | 55.775 | | | | | | | | | |
| Sales Tax | | | | | | | | | | | | | | | | | | 4.74 | | | | | | | | | |
| Shipping | | | | | | | | | | | | | | | | | | 25.00 | | | heavy shipment | | | | | | |
| Student Replacement Parts Kit | | | | | | | | | | | | | | | | | | 17.31 | | | | | | | | | |
| Consumable total for class | | | | | | | | | | | | | | | | | | 102.83 | | | | | | | | | |
| Printing | | | | | | | | | | | | | | | | | | 15.00 | | | | | | | | | |
| 57 | 100.00 | Laserprinter Paper & Toner | | | | | 0.15 | | | | | | | | 15.00 | | | standard IC rate is 0.15/page. | | | | | | | | | |